

Amendments to the Claims:

1. (Currently Amended) A method for quantifying molecules expressing a selected epitope in a sample comprising:

(a) immobilizing a molecule expressing a selected epitope in a sample to a selected surface;

(b) contacting the surface with an epitope detector so that the epitope detector binds to immobilized molecules on the surface, said epitope detector comprising an oligonucleotide attached to a monoclonal antibody for the selected epitope, a single chain Fv for the epitope or a constrained epitope specific CDR;

(c) amplifying the oligonucleotide of said epitope detector by RNA amplification;

(d) contacting the amplified oligonucleotide with a fluorescent dye which binds to RNA and stains the amplified oligonucleotide; and

(e) measuring a quanta of fluorescence signals emitted from the stained oligonucleotide which is directly proportional to ~~indicative of~~ epitope detector bound to the surface and molecules expressing the selected epitope in the sample.

2-10. (Cancelled)

11. (Previously Amended) A method for detecting molecules expressing a selected epitope in a sample comprising:

(a) immobilizing a molecule expressing a selected epitope in a sample to a selected surface;

(b) contacting the surface with an epitope detector so that the epitope detector binds to immobilized molecules on the surface, said epitope detector comprising an oligonucleotide attached to a monoclonal antibody for the selected epitope, a single chain Fv for the epitope or a constrained epitope specific CDR;

(c) amplifying the oligonucleotide of said epitope detector by RNA amplification;

(d) adding the amplified oligonucleotide of said epitope detector from step (c) to a reverse transcriptase based reaction or a replicase based reaction to increase sensitivity;

(e) detecting the product of step (d) by contacting the product of step (d) with a fluorescent dye or probe which binds RNA and stains the product of step (d) and measuring fluorescence emitted from the stained product of step (d) which is indicative of epitope detector bound to the surface and molecules expressing the selected epitope in the sample.

12-13. (Cancelled)

14. (Previously Amended) The method of claim 11 wherein the selected surface to which the molecule expressing a selected epitope in a sample is immobilized is a chip or plastic well.

15. (Previously Presented) The method of claim 1 wherein the selected surface is selected from the group consisting of: a chip and a microtiter plate.

16. (Currently Amended) A The method of claim 1 for quantifying molecules expressing a selected epitope in a sample comprising:

(a) immobilizing a molecule expressing a selected epitope in a sample to a selected surface;

(b) contacting the surface with an epitope detector so that the epitope detector binds to immobilized molecules on the surface, wherein said epitope detector is an oligonucleotide attached to a single chain Fv that specifically binds to the selected epitope, or an oligonucleotide attached to a constrained epitope specific CDR;

(c) amplifying the oligonucleotide of said epitope detector by RNA amplification;

(d) contacting the amplified oligonucleotide with a fluorescent dye which binds to RNA and stains the amplified oligonucleotide; and

(e) measuring fluorescence emitted from the stained oligonucleotide which is indicative of epitope detector bound to the surface and molecules expressing the selected epitope in the sample.

17. (Previously Presented) The method of claim 16 wherein said epitope detector is an oligonucleotide attached to a single chain Fv that specifically binds to the selected epitope.

18. (Previously Presented) The method of claim 1 wherein the oligonucleotide is linked to the monoclonal antibody, a single chain Fv, or a constrained CDR by biotin-streptavidin linkers.

19. (Previously Presented) The method of claim 1 wherein the oligonucleotide is a double stranded cDNA molecule.

20. (Previously Presented) The method of claim 1 wherein the oligonucleotide comprises an RNA promoter selected from the group consisting of: a T7 RNA promoter, a T3 RNA promoter and an SP6 RNA promoter.

21. (Previously Presented) The method of claim 1 wherein the fluorescent dye is an unsymmetrical cyanine dye.

22. (Currently Amended). A The method of claim 11 for detecting molecules expressing a selected epitope in a sample comprising:

(a) immobilizing a molecule expressing a selected epitope in a sample to a selected surface;

(b) contacting the surface with an epitope detector so that the epitope detector binds to immobilized molecules on the surface, wherein said epitope detector is an oligonucleotide attached to a single chain Fv that specifically binds to the selected epitope, or an oligonucleotide attached to a constrained epitope specific CDR;

(c) amplifying the oligonucleotide of said epitope detector by RNA amplification;

(d) adding the amplified oligonucleotide of said epitope detector from step (c) to a reverse transcriptase based reaction or a replicase based reaction to increase sensitivity;

(e) detecting the product of step (d) by contacting the product of step (d) with a fluorescent dye or probe which binds RNA and stains the product of step (d) and measuring fluorescence emitted from the stained product of step (d) which is indicative of epitope detector bound to the surface and molecules expressing the selected epitope in the sample.

23. (Previously Presented) The method of claim 22 wherein said epitope detector is an oligonucleotide attached to a single chain Fv that specifically binds to the selected epitope.

24. (Previously Presented) The method of claim 11 wherein the oligonucleotide is linked to the monoclonal antibody, a single chain Fv, or a constrained CDR by biotin-streptavidin linkers.

25. (Previously Presented) The method of claim 11 wherein the oligonucleotide is a double stranded cDNA molecule.

26. (Previously Presented) The method of claim 11 wherein the oligonucleotide comprises an RNA promoter selected from the group consisting of: a T7 RNA promoter, a T3 RNA promoter and an SP6 RNA promoter.

27. (Previously Presented) The method of claim 11 wherein the fluorescent dye is an unsymmetrical cyanine dye.